

30325
S/184/61/000/006/002/005
D041/D113

5.1175

AUTHOR: Zhivaykin, L.Ya., Engineer

TITLE: On the thickness of a fluid-film in film-type apparatuses

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 6, 1961, 25-29

TEXT: The author carried out experimental investigations which consisted in measuring the thickness of a liquid film on the walls of a vertical tube when no gas flow was present, and also in the case of upward and downward gas motion. The fluid consumption varied within the 0.25-9.50 cm²/sec. range, and the gas velocity between 0 and 40 m/sec. The experimental device consisted of glass tubes, 13 and 21 mm in diam and 830 mm long. In the case of a single-phase turbulent flow of a liquid film, the author developed the following equations determining the film thickness:

$$b = 0.141 \left(\frac{v^2}{g} \right)^{1/3} \frac{7/12}{Re} \quad (5)$$

✓

Card 1/4

30325

S/184/61/000/006/002/005

D041/D113

On the thickness of a fluid-film...

$$b = 0.317 \left(\frac{\nu}{g^4} \right)^{1/12} Q^{7/12} \quad (6)$$

where ν -- kinematic viscosity of the fluid in cm^2/sec ; g -- gravity acceleration in cm/sec^2 ; and Q -- liquid consumption per unit width of the flow in cm^3/sec . The case of the downward phase flow was investigated using the following liquids with the following specific weight (in G/cm^3) and viscosities (in cp): water -- 1.000 and 1.14; 35-% aqueous solution of glycerin -- 1.083 and 3.24; 47-% aqueous solution of glycerin -- 1.100 and 5.21; 55-% aqueous solution of glycerin -- 1.140 and 8.00. Visual observations and observations of other characteristic values (hydraulic resistance, liquid removal, formation of waves) led to the conclusion that the following phenomena occur in the downward two-phase film flow: zone of weak gas effect (at $v < 4 \text{ m/sec}$), separate phase flow (fluid film along the wall and gas flow in the tube center) and separation and removal of liquid (fluid film along the wall and gas-liquid flow in the tube center). The limit of the beginning of spray flash is determined by the critical speed of the gas and depends on the liquid consumption and on the physical properties of the liquid: ✓

Card 2/4

30325
S/184/61/000/006/002/005
D041/D113

On the thickness of a fluid-film

$$v_{\text{crit}} = f(Q, \mu, \rho, \sigma) \quad (7)$$

where σ -- surface tension of the fluid in G/cm; ρ -- fluid density in g.sec²/cm⁴; and μ -- dynamic viscosity of the fluid in G.sec/cm². In the case of upward gas flow, the gas friction on the film surface has a still greater effect on the flow hydrodynamics than in the case of downward gas flow, while the zone of weak gas-effect drops to 2-3 m/sec; the brake action of the gas at $v > 2-3$ m/sec abruptly increases the film thickness and causes a temporary fluid suspension; after the suspension takes place, the fluid direction changes and the flow streams upward. Generalized data on the film flow in vertical tubes (air-water system) are illustrated in a diagram showing the areas and limits of various flows, the zone of weak gas effect on the film flow, the fluid suspension area, and the possible applications of various formulae for determining the film thickness. The following Soviet-bloc personalities are mentioned in the article: P.A. Semenov (Ref. 15: Zhurnal tekhnicheskoy fiziki, v. 14, no. 7-8, 1944 and Ref. 24: Zhurnal tekhnicheskoy fiziki, v. 20, no. 8, 1950) who was the first to investigate the effect of the gas-flow motion on the fluid-film flow; and B.I. Konobeyev, V.A. Malyusov, N.M. Zhavoronkov (Ref. 1: Doklady AN SSSR, v. 117, no. 4, 1957 and Ref. 2: Khimicheskaya promyshlennost', no. 3, 1957) who developed a simple equation for deter-

Card 3/4

30325
S/184/61/000/006/002/005
D041/D113

On the thickness of a fluid-film

mining (in the case of upward phase flow) the film thickness by means of the fluid consumption and the resistance of the dry tube. There are 6 figures and 33 references: 14 Soviet-bloc and 19 non-Soviet bloc. The four most recent references to English-language publications read as follows: R.A. Nijsing, Hendriksz, H. Kramers, Chem. Engng. Sci., v. 10, no. 1-2, 1959; H. Brauer, Chem. Ing. Techn. v. 30, no. 2, 1958; I.L. Chaudler, Brit. Chem. Engng., v. 4, no. 2, 1959; and I.I. Rossum, Chem. Engng. Sci., v. 11, no. 1, 1959. *X*

Card 4/4

ZHIVCHIK, G.I. [Zhyvchyk, H.I.]

In fraternal unity. Mekh. sil'. hosp. 10 no.3:3-4 Mr '59.
(MIRA 12:6)

1. Nachal'nik kolkhoza im. Kalinina, Novosel'skogo rayona, Ternopel'skoy oblasti.

(Collective farms)

ZHIVCHIKOV, A., polkovnik, komandir polka

Making the propaganda of military technology effective. Koms. Vooruzh.
Sil 3 no.2:34-37 Ja '63. (MIRA 16:2)
(Military education)

ZAKHARCHENKO, A.L., inzh.; MAKAKHTANOV, K.P., inzh.; GORBUNOV, V.R., inzh.;
ZHIVCHIKOV, N.I., inzh.; KOZLOVSKIY, N.I., inzh.; BARSUKOV, A.F.,
red.; PECHENKIN, I.V., tekhn.red.

[New tractors and agricultural machinery; results of testing in
1957] Novye traktory i sel'skokhoziastvennye mashiny; rezul'taty
ispytanii 1957 goda. Moskva, No.2. 1959. 331 p.

(MIRA 13:12)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye mekhanizatsii i
elektrifikatsii sel'skogo khozyaystva.

(Tractors--Testing)

(Agricultural machinery--Testing)

KHILUDENOV, A.I., inzh.; ZHIVCHIKOV, N.I., inzh.

Combine for harvesting green peas. Mekh. i elek.sots.sel'khoz. 17
no. 4:50-51 '52. (MIRA 12:11)

1. Pushkinskaya mashinoispytatel'naya stantsiya.
(Peas--Harvesting) (Combines (Agricultural machinery))

ZHVCHIKOV, N.I., inshener.

Results of government tests with the AG-16 aerosol fog generator.
Sel'khozmschina no.5:17-19 My '56. (MLRA 9:8)
(Spraying and dusting equipment)

ZHIVCHIKOV, V. A.

PHASE I BOOK EXPLOITATION

SOV/5658

Ivanov, Aleksandr Petrovich, Candidate of Technical Sciences, and
Viktor Dmitrievich Lisitsyn, Candidate of Technical Sciences,
eds.

Modernizatsiya kuznechno-shtampovochnogo oborudovaniya (Moderni-
zation of Die-Forging Equipment) Moscow, Mashgiz, 1961. 226 p.
Errata slip inserted. 10,000 copies printed.

Reviewer: V. Ye. Nedorezov, Candidate of Technical Sciences; Ed.
of Publishing House: T. L. Leykina; Tech. Ed.: A. A. Bardina;
Managing Ed. for Literature on Machine-Building Technology
(Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for foremen, machinists, designers,
and process engineers concerned with the modernization and de-
signing of die-forging equipment. It may also be used by students
at schools of higher education.

COVERAGE: The book contains material presented at the Conference

Card 1/8

Modernization of Die-Forging Equipment

SOV/5658

on Problems in the Modernization and Operation of Die-Forging Equipment, held in November 1958 in Leningrad. The Conference was called by Leningradskiy Sovet narodnogo khozyaystva, Sektsiya obrabotki metallov davleniyem Leningradskogo oblastnogo pravleniya NTO Mashprom (Leningrad Council of the National Economy, Section of Metal Pressworking at the Leningrad Oblast Board of the Scientific and Technical Society of the Machine Industry) and Leningradskiy mekhanicheskiy institut (Leningrad Mechanical Engineering Institute). Actual problems in the modernization, operation, and repair of die-forging equipment are described. Analyses are provided for problems involved in the mechanization and automation of die-forging and stamping operations. Also included are practical data to be used in the modernization of equipment. No personalities are mentioned. There are 59 references: 56 Soviet, 2 German, and 1 English.

TABLE OF CONTENTS:

Foreword

3

Card 2/8

Modernization of Die-Forging Equipment

SOV/5658

27

Ch. I. General Problems in the Modernization of Die-Forging Equipment

1. Basic trends in the modernization of die-forging equipment (V. B. Gordin, Candidate of Technical Sciences) 5
2. The requirements for die-forging equipment (A. P. Ivanov, Candidate of Technical Sciences) 8

Ch. II. Modernization of Forging and Die-Forging Steam Hammers

1. Hammers and their role in modern die-forging equipment (Z. M. Ginzburg, Engineer) 18
2. The modernization of steam-distributing devices of hammers (A. L. Ashkinazi, Candidate of Technical Sciences, and I. I. Kozhinskiy, Engineer) 18
3. Modernization of hammer control and drive (A. L. Ashkinazi, Z. I. Ginzburg, and K. K. Yekimov, Engineer) 19
4. Modernization and repair of foundations and anvil blocks of hammers (Yu. V. Belyayev, Candidate of Technical Sciences, Z. M. Ginzburg, and I. I. Kozhinskiy) 26

31

Card 3/8

Modernization of Die-Forging Equipment

SOV/5658

5. Modernization and repair of hammer frames and guides (V. A. Zhivchikov, Engineer, and I. I. Kozhinskiy)	38
6. Modernization and repair of hammer cylinders and piston rods (Z. M. Ginzburg, V. A. Zhivchikov, I. I. Kozhinskiy, A. M. Kaznacheyev, and M. V. TILINSKIY)	41
7. Modernization and repair of rams (I. I. Kozhinskiy)	50
8. Lubrication of hammers (I. A. Gorbunov, I. I. Kozhinskiy, and A. I. Kaznacheyev)	53
Ch. III. Modernization of Steam-Hydraulic and Hydraulic Presses	
1. Modern trends and the outlook for modernization of hydraulic presses (A. L. Ashkinazi and V. B. Gordin)	56
2. The ways for decreasing the weight and overall dimensions of hydraulic presses (Yu. P. Kyz'ko, Engineer)	58
3. Modernization of steam-hydraulic "United" 2,000-ton forging press (B. P. Vasil'yev and V. A. Yelezov, Engineers)	63
4. Automation of steam-hydraulic "United" presses (S. P. Moiseyev, Engineer)	71

Card 4/8

Modernization of Die-Forging Equipment

SOV/5658

Ch. IV. Modernization of Mechanical Crankshaft Presses	78
1. Basic methods for the complete modernization of crankshaft presses (M. A. Goncharenko, Engineer, and V. D. Lisitsyn, Candidate of Technical Sciences)	78
2. Modernization of the drives of mechanical presses (A. P. Ivanov and V. B. Gordin, Candidates of Technical Sciences)	87
3. Modernization of engaging and disengaging mechanisms of crankshaft presses (V. A. Zhivchikov, A. M. Kaznacheyev, and V. D. Lisitsyn)	89
4. Modernization of control system of mechanical presses (V. D. Lisitsyn)	100
5. Modernization and repair of individual subassemblies and parts of mechanical presses (I. I. Kozhinskiy, and V. D. Lisitsyn)	108
6. Modernization of mechanical presses for the purpose of protecting them against overloading (Yu. M. Buzikov, Engineer)	115
7. Safety technique in the modernization of mechanical presses (V. D. Lisitsyn)	129

Card 5/8

Modernization of Die-Forging Equipment

sov/5658

Ch. V. Modernization of Horizontal-Forging Machines [Upsetters], Percussion Presses, and Shears	133
1. Modernization of horizontal-forging machines (V. A. Zhivchikov and I. I. Kozhinskiy)	133
2. Modernization of power-screw percussion presses (I. I. Kozhinskiy, and A. M. Kaznacheyev)	141
3. Modernization of eccentric shears for blanking operations (I. I. Kozhinskiy and V. N. Cherkasov, Engineer)	144
Ch. VI. Mechanization of Forging and Hot Die-Forging Operations in the Modernization of Hammers and Hydraulic Presses	149
1. Mechanisms and equipment for forging and die forging on hammers (K. K. Yekimov, Engineer)	149
2. Mechanisms and equipment for press-forging (K. K. Yekimov, and S. P. Moiseyev)	155
Ch. VII. Mechanization and Automation of Stamping Operations in The Modernization of Crankshaft Presses	160

Card 6/8

Modernization of Die-Forging Equipment

SOV/5658

1. Trends in application of mechanizing and automatizing devices in the modernization of presses (V. D. Lisitsyn and M. A. Goncharenko)	160
2. Mechanical devices for feeding band and strip stock (M. A. Gutnik, Engineer, V. D. Lisitsyn, and Ye. S. Nazarenko, Engineer)	163
3. Mechanical devices for feeding piece-blanks (V. D. Lisitsyn, and Ye. S. Nazarenko)	177
4. Fully automated [production] lines (E. E. Roytershteyn, Engineer)	186
Ch. VIII. Experimental Investigation of Die-Forging Equipment	
1. General sequence for the calculation and design of machines in the modernization of die-forging equipment (A. P. Ivanov)	191
2. Basic problems of the drive-system dynamics and of the automatic feed of stock in the modernization of presses (A. P. Ivanov and Ye. S. Nazarenko)	193

Card 7/8

Modernization of Die-Forging Equipment

SOV/5658

3. Methods and means for the experimental investigation of
die-forging equipment (V. I. Zaytsev and M. P. Pavlov,
Candidates of Technical Sciences) 203

Bibliography 223

AVAILABLE: Library of Congress

Card 8/8

VK/wrc/ee
11-7-61

ZHIVCHIKOV, V.A.

Pneumatic manipulator for horizontal forging machines. Avt. 1 trakt,
prom. no. 3:44-45 Mr '56. (MIRA 9:?)

1. Gor'kovskiy avtозавод имени Molotova.
(Forging machinery)

ZHIVETIN, V.V., aspirant; RYBINA, K.A., tekhnolog

New formula for starch size. Tekst.prom. 25 no.11:45-46 N '65.
(MIRA 18:12)

1. Kostromskoy tekhnologicheskiy institut (for Zhivetin).
2. Tkatskaya fabrika Kostromskogo l'nikombinata imeni I.D. Zvorykina (for Rybina).

ZHIVETSKIY, A.V. (Chernovtsy (obl.) ul.Zan'kovetskoy, d.4, kv.13)

Treatment of acute serous inflammation of the knee joints of traumatic origin. Ortop. travm.i protez. 22 no.1:72 Ja '61. (MIRA 14:5)

1. Iz Chernovitskoy zheleznodorozhnoy bol'nitsy (nachal'nik - A.V.Zhivetskiy) L'vovskoy zheleznoy dorogi (nauchnyy rukovoditel' raboty - prof. V.L.Khenkin).
(KNEE - WOUNDS AND INJURIES)

ZHIVETSKIY, A.V.

Acute serous inflammation of the knee joints of traumatic origin; experimental study. Khirurgia 39 no.12:77-80 D '63
(MIRA 18:1)

1. Iz Chernovitskoy zheleznodorozhny bol'nitsy (nachal'nik
A.V. Zhivetskiy, nauchnyy rukovoditel' - prof. V.L. Khenkin)
L'vovskoy zheleznoy dorogi.

ZHIVETSKIY, A.V.

Results of two-phase hospital service for patients. Med.
sestra 22 no.9:56-57 S'63.

(MIRA 16:10)

1. Glavnnyy vrach Chernovitskoy zheleznodorozhnoy bol'nitsy
L'vovskoy zheleznoy dorogi
(MOSCOW—HOSPITALS)

ZHIVETSKIY, A.V.

Etiology, pathogenesis, and treatment of acute traumatic serous synovites. *Klin.khir.* no.12:25-27 D '62. (MIRA 1612)

1. Khirurgicheskoye otdeleniye Chernovitskoy zheleznodorozhnoy bol'nitsy Lvovskoy zheleznoy dorogi. Nauchnyy rukovoditel' - prof. V.L. Khenkin.

(SYNOVIAL MEMBRANES—INFLAMMATION)

ZHIVETSKIY, A.V.

Exudate in acute traumatic serous synovitis of the knee joint
and its change under the influence of desensitizing therapy.
Clinical experimental study. Ortop., travm.i protez. no.2:38-41
'62. (MIRA 15:3)

1. Iz Chernovitskoy zhelezmodorozhnoy bol'nitsy (nach. - A.V.
Zhvetksiy) L'vovskoy zheleznoy dorogi.
(KNEE—DISEASES) (SYNOVIAL MEMBRANES—DISEASES)

ORLOV, V.P., kand.sel'skokhoz.nauk. Prinimali uchastiye: AVROV, N.N.;
BASEMKO, P.V.; VAHLLAMOV, D.A.; VASIL'YEV, I.I.; VLASOV, V.N.;
VYLEGZHANINA, V.A.; ZHIVET'YEV, V.G.; ZAVADSKIY, I.S.; ZALESSKIY,
Ye.Ya.; ZAKORYUKIN, D.S.; ISHCHENKO, I.N.; KACHIBAYA, I.D.; KISE-
LEV, Ye.S.; KOZHEVNIKOV, I.Z.; LISITSYN, V.I.; MESHCHERIAKOV, V.F.;
NYURIN-VERTSBERG, R.L.; PEREPELITSA, V.M.; RYABKOV, A.D.; SKURIKHIN,
I.P.; SOLOV'YEV, N.A.; YAS'KO, N.G.. GREBTSOV, P.P., red.; ZUBRILINA,
Z.P., tekhn.red.

[Our farms in 1965] Nashi khozisistva v 1965 godu. Moskva, Gos.
izd-vo sel'khoz.lit-ry, 1959. 230 p. (MIRA 13:2)
(Agriculture)

ZHIVEYNOMA, L.F.

PHASE I BOOK EXPLOITATION 1049

Kabardino-Balkar A.S.S.R. Statisticheskoye upravleniye

Narodnoye khozyaystvo Kabardino-Balkarskoy ASSR; statisticheskiy sbornik.
(National Economy of the Kabardino-Balkar A.S.S.R.; Collection of
Statistics) Nalchik, Kabardino-Balkarskoye knizhnoye izd-vo, 1957. 112 p.
1,000 copies printed.

Additional Sponsoring Agency: U.S.S.R. Tsentral'noye statisticheskoye
upravleniye

Compilers: Leshchenko, Ye.V., Zakharov, G. V., Akimova, A.G., Mol'kov, I.P.,
Zhivaynova, L.F., Sukhova, N.N., and Agaronyan, P.K.; Chief Ed.: Zimovnov, L.I.,
Chief, Kabardino-Balkar S.S.R. Statistical Administration; Ed.: Sukhova, N.N.;
Tech. Ed.; Tkakachov, B. Zh.

PURPOSE: This book is intended for economists and economic statisticians.

COVERAGE: This is a statistical compilation containing the conventional statistical data on the development of the national economy within the present-day limits of this Republic. Recent statistical data are contrasted with those for 1940, and in some cases also with those for 1923 and 1913. In many

Card 1/3

National Economy of the Kabardino-Balkar A.S.S.R.; Collection (Cont.) 1049

cases, when describing the state of national economy as of today, the compilers list figures for individual rayons and for the town of Nal'chik. Output in physical units is available only for basic commodities.

TABLE OF CONTENTS:

Ch. I. Summary Section	7
This chapter contains data on population and administrative and territorial units	
Ch. II. Industries	11
Growth of industrial production in physical units; dynamic indices; proportion of industrial workers; labor productivity; number of industrial workers	
Ch. III. Agriculture and Husbandry	23
Area of farm lands; electrification; MTS and tractor park; grouping of farms by size and ownership; area sown, head of cattle	
Ch. IV. Capital Construction	59
Capital investments; housing development; public utilities	

Card 2/3

National Economy of the Kabardino-Balkar A.S.S.R.; Collection (Cont.) 1049

Ch. V. Transportation and Communication Freight turnover; motor transport; railways	65
Ch. VI. Commerce Retail sales; number of retail enterprises and public dining halls; commodities at the market; warehouses of consumers' cooperatives; profit of sales; number of employees	69
Ch. VII. Number of Workers and Specialists. Training of Specialized Personnel Total number of workers; number of specialists per type of trade; training	83
Ch. VIII. Culture Indices of cultural construction; schools; number of teachers and pupils; graduation statistics; libraries, cinemas, summer camps	89
Ch. IX. Public Health Number of hospital beds; number of physicians; nurseries; sanatoria	105

AVAILABLE: Library of Congress

Card 3/3

MM/fal
1-22-59

TULIN, M.A.; POZDEYEV, N.P.; YARTSEV, M.A.; SERGEYEV, A.B.; ZHIVICHKIN, L.A.,
, elektrik; GAYDUK, Yu.A., mekhanik

Adopting the vacuum induction furnace OKB-571-B. Metallurg 8 no.4:24-26
Ap '63. (MIRA 16:3)
(Electric furnaces—Design and construction)

KAPEL'NITSKIY, V.G.; SHVED, F.I.; YARTSEV, M.A.; TULIN, N.A.; POZDEYEV, N.P.;
SERGEYEV, A.B.; MERENISHCHEVA, I.I.; KALININA, Z.M.; POZDNYAKOV, M.V.;
Prinimali uchastiye: KUZOVATOV, V.N.; MAKSUTOV, R.F.; MYSINA, G.Ye.;
SHELGAYEVA, A.V.; ZHIVICHKIN, L.A.; GAYDUK, Yu.A.; GALYAN, V.S.;
SOSKOV, D.A.; KHMELEV, I.I.; PARABINA, G.I.

Making steel and alloys in vacuum furnaces. Stal' 23 no.4:325-328
Ap '63.

(Vacuum metallurgy) (MIRA 16:4)
(Electric furnaces)

MAL'TSEV, L.A.; AKHMETSHIN, N.F.; ZHIVICHKINA, A.A.; SHCHEDROVITSKIY, Ya.S.;
BARASHKIN, I.I.; PEKARSKIY, L.F.; SEMENOV, V.Ye.

Secondary current supply in closed-top ferroalloy-smelting furnaces.
Stal' 25 no.12:1099-1100 D '65. (MIRA 18:12)

1. Chelyabinskij nauchno-issledovatel'skiy institut metallurgii
- 1 Almaznyanskiy zavod ferrosplavov.

ZHIVII, P. I.

"The Structure Of The Mitotic Figure In The Spermatozoa Of *Potamobius Astacus*. New Method
Of Study of Achromatic Filaments. Arrangements for Printing The Posthumous Work At
P. I. Zhivii and S. L. Frolova, Institute Of Experimental Biology (Director: N. K. Koltsov),
Moscow." (p. 267) by Shaposhnikov, B. N. (Deceased)

SO: PREDECESSOR OF JOURNAL OF GENERAL BIOLOGY. (*Biologicheskii Zhurnal*) Vol. VII, 1938 No. 2

ZHIVILIN, Nikolay Nikolayevich; SHENTSIS, Ye.M., red.; KAPRALOVA, A.A.,
tekhn.red.

[Modern organization of agricultural statistics] Sovremennoe
organizatsiia statistiki zemledeliia. Moskva, Gosstatistdat
TsSU SSSR, 1960. 122 p.
(Agriculture--Statistics) (MIRA 14:4)

BALASHOVA, N.I.; LOVACHEVA, M.V.; SELIVANOVA, Ye.P.; ZHIVILIN, N.N.;
MANYAKIN, V.I., red.; SLEMZIN, A.A., red.; PYATAKOVA, N.D., tekhn.red.

[Certified seed sowing in the U.S.S.R. (grain and sunflower);
a statistical manual] Sortovye posevy SSSR (zernovye kul'tury
i podsolnechnik); statisticheskiy sbornik. Moskva, Gos.stat.
izd-vo, 1957. 422 p. (MIRA 11:1)

1. Chlen Kollegii Tsentral'nogo statisticheskogo upravleniya SSSR
(for Manyakin). 2. Russia (1923- U.S.S.R.) Tsentral'noye
statisticheskoye upravleniye.

(Field crops)

ZHIVILIN, N.

AUTHOR:

Zhivilin, N.

2-58-5-15/17

TITLE:

News in the Registration of Sowing Areas, High Quality
Sowing and "Factual" Harvests for 1958 (Novoye v uchete posev-
nykh ploshchadey, sortovykh posevov i fakticheskogo sбora
urozhaya na 1958 g)

PERIODICAL:

Vestnik Statistiki, 1958, Nr 5, pp 87 - 88 (USSR)

ABSTRACT:

Taking into account previous experience and suggestions of
workers in statistical organizations, the TsSU SSSR included
into its program alterations in the final registration of
sowing areas, high-quality sowing and factual harvests in 1958.
These alterations on this subject are listed.

AVAILABLE:

Library of Congress

Card 1/1

PAVLOV, A.N., otv. za vypusk; VOLODICHIEVA, V.N.; IVANOVA, A.I.; KULAKOV, I.N.; LYAMINA, T.N.; MIT'KINA, L.I.; POZDNYAKOVA, N.P.; RODIONOVA, L.I.; ROMANOVA, N.M.; SOFIYEV, E.S.; CHICHKINA, A.A.; TRESORUKOVA, Z.G.; BOGATYREV, P.P.; BROVKINA, A.I.; IVANOVA, L.D.; IVASHKIN, G.A.; KAMNEV, N.I.; LYSANOVA, L.A.; OZHEREL'IEVA, Z.I.; PAVLOVA, T.I.; TYUTYUNOVA, N.I.; UMMITSYNA, A.P.; ZHIVILIN, N.N.; ALESHICHIN, M.P.; VINOGRADOV, V.I.; YEREMIN, F.S.; KRAVCHENKO, Ye.P.; LOVACHEVA, M.V.; NIKOL'SKAYA, V.S.; MAKHOV, G.I.; SKEGINA, A.V.; TAREYEV, A.V.; KHOLINA, A.V.; BRYANSKIY, A.M.; BURMISTROVA, V.D.; GRIGOR'Yeva, A.M.; LUTSENKO, A.I.; OREKHOVA, Z.V.; TEPLINSKAYA, N.V.; FROKTISTOVA, V.I.; BUTORIN, I.M.; BOCHKAREVA, L.D.; BURENINA, V.A.; VETUSHKO, A.M.; VIKHLYAYEV, A.A.; SOROKIN, B.S.; TSYBENKO, L.T.; KHLIEBNIKOV, V.N.; DUMNOV, D.I.; STEPANOVA, V.A.; MANYAKIN, V.I., red.; VAKHATOV, A.M.; MAKAROVA, O.K., red.ind-va; PIATAKOVA, N.D., tekhn.red.

[Soviet agriculture; a statistical manual] Sel'skoe khozisistvo SSSR; statisticheskii sbornik. Moskva, 1960. 665 p.

(MIRA 13:5)

1. Russia (1923- U.S.S.R.) TSentral'noye statisticheskoye upravleniye. 2. Upravleniye statistiki sel'skogo khozyaystva TSentral'nogo statisticheskogo upravleniya SSSR (for all except Makarova, Pyatakova).

(Agriculture--Statistics)

VORONTSOV, Yu.; GARMAZ, V., elektrik; SHUTIK, I.; PRESMAN, B.; ZHIVILIN, P.

If we take the task seriously. Izobr.i rats. no.7:34-36 J1 '60.
(MIRA 13:8)

1. Chleny reydotovoy brigady Minskogo kamvol'nogo kombinata.
2. Nachal'nik rovничnogo tsakha Minskogo kamvol'nogo kombinata
(for Vorontsov). 3. Sotrudnik mnogotirazhki "Za kommunisticheskiy
trud" (for Shutik). 4. Sotrudnik zhurnala "Izobrstatel' i
ratsionalizator" (for Zhivilin).
(Minsk--Textile industry)

ZHIVILIN, P.

Printing our periodical. Izobr. i rats. no. 5:48-49 My '61.
(Moscow—Printing) (MIRA 14:5)

ZHIVILO, K.I.

Simple carriage for checking motor vehicle scales. Izm.tekh.
no.2:15 F '62. (MIRA 15:2)
(Scales (Weighing instruments)--Testing)

KHLISTUNOV, V.N.; ZHIVILOV, G.G.

Quick-acting self-controlled digital voltmeter. Izm.tekh.
no.8:44-46 Ag '62. (MIRA 16:4)
(Voltmeter)

SOV724-58-10-34/34

AUTHOR: Solosenov, N. S.

TITLE: Conference on Water Preparation in Thermal Power Stations

(O vodopodgotovke na teplovykh elektrostantsiyakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, No. 10, pp. 159-160 (R33)

ABSTRACT: During June 24-27, 1958, a conference took place on problems

of water preparation in thermal power stations of high, intermediate, super-high and super-critical pressures. The conference was convened by the Commission on Steam of Very High USSR. Head of the Power Research Institute, Academy of Sciences of Power Stations USSR and the Moscow Scientific-Technical Society of the power industry. Over 400 representatives of scientific research establishments and of power stations participated. In the section on design, setting and operation of combined plant with magnesium desalinating, the following papers were read:

1) "Experience in setting up and operation of water treatment plant with desalinating by means of magnesium," V. F.

Gvordov (GorEnerg)

2) "State and tasks in the development of plants for magnesium desalinating of water in thermal power stations," V. N. Kryatovskiy (TepR)

3) "Calculation of automation of plant with desalinating by means of magnesium," Ye. N. Krasotkin and V. I. Kryatovskiy (TepR)

4) "Problems of designing combined cation water treatment plants with magnesium desalinating," A. A. Kupchitskaya (Chastnoye otdeleniye TepR)

5) "Desalinating of the water by means of filters," O. N.

Shevchenko (VODNOKO)

6) "Investigation of the process of magnesium desalinating of water at elevated temperatures," I. V. Shchelkina (TepR)

7) "Na-iodian-natrium method of desalinating water," L. S.

Kupliko (Dnibrosvodsero)

In the second section, "Experience in design, setting and

operation of chemical desalinating plants", the following papers

1) "Results of investigation and of industrial tests of chemical desalinating plants and prospects of their application in thermal power stations with super-high and super-critical steam parameters," P. G. Protopopov (TepR-disk)

2) "New local tea for water preparation plant and prospects of their industrial manufacture," A. V. Pleshkov (Institut Plastmassa in. Pruzhine)

3) "Problems of design of chemical desalinating plant," V. S.

Chernyayev (EnerG)

4) "Automation of chemical plants for water treatment in power stations," S. V. Gurevich (TepR)

In addition to these papers, 10 informative communications

of various local enterprises were presented. It trans-

duced that during the recent years much interest in magnesium desalinating and magnesium chemical desalinating of water have

been shown. The important role in Soviet power stations and

heat power plants in the application of magnesium desalinating

or water together with the application of steam separators

in boilers, washing of steam and other methods enabled

(110 atm) boilers in combined heat and power stations which

operate with a large loss of condensate. During recent years

methods for dry desalinating of magnesium as well as tech-

Card 3/5
Illustration of the chemical and an electrical method was described

ZHIVILOVA A. M.

USSR/Medicine - Malaria
Medicine - Acrichine

May/June 1947

"The Treatment of Malaria with Dextro-rotatory Acrichine," A. P. Butyagina, A. M. Zhivilova,
Clinical Department of the Institute of Malaria and Medical Parasitology, Academy of the
Medical Sciences, USSR, 6 pp

"Meditinskaya Parazitologiya" No 3

Brief discussion, with two statistical tables, of 150 malaria cases treated with intramuscular injections of a 0.4 preparation in the course of three days treatment.

PA. 17T39

ZHIVILOVA, L., mladshiy nauchnyy sotrudnik

Aluminum in shipbuilding in the U.S.A. Rech. transp. 22 no.2:45
F '63. (MIRA 16:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut ekonomiki i
eksploatatsii vodnogo transporta.
(United States—Shipbuilding materials) (Aluminum)

ZHIVILOVA, L. M. Cand Tech Sci -- (diss) "Study of the Basic Factors Determining the Effectiveness of the Process of the Magnesia Desilication of Water." Mos, 1957. 16 pp 20 cm. (Min of Power Stations USSR, All-Union Order of Labor Red Banner Heat Engineering Scientific Research Inst im F. E. Dzerzhinskiy), 100 copies (KL, 25-57, 112)

- 55 -

SOV/96-59-5-13/19

AUTHORS: Kvyatkovskiy, V.M., Candidate of Technical Sciences and
Zhivilova, L.M., Candidate of Technical Sciences

TITLE: An Investigation of the Process of Magnesia De-silication
of Water at High Temperature (Issledovaniye protsessa
magnezial'nogo obeskremnivaniya vody pri vysokoy
temperature)

PERIODICAL: Teploenergetika, 1959, Nr 5, pp 70-74 (USSR)

ABSTRACT: The practice of treating water with lime or soda-lime
at temperatures of 100°C and more is receiving attention
in the American technical press, also special de-silicating
agents are sometimes used. The main advantage of the
proposal from the standpoint of Soviet practice is the
prospect of obtaining more efficient de-silication. This
article describes work done to assess the possibility of
achieving good de-silication of water by lime treatment
without introducing additional magnesia agents; also to
investigate the possibility of improving de-silication
when water is treated with caustic magnesite or in other
ways. The laboratory equipment that was used to treat
water at a temperature of 120 to 130°C is described and

Card 1/5

SOV/96-59-5-13/19

An Investigation of the Process of Magnesia De-silication of Water at High Temperature

drawn schematically in Fig 1. The test results are in Fig 2, 3 and 4 and Tables 1, 2, 3, and 4. They show that by means of caustic magnesite at 120 to 130°C it is possible to reduce the content of silicic acid compounds in the water to a value of the order of 0.3 mg/litre SiO_3 . At 40 to 80°C the silica content can only be reduced to 0.75 mg/litre. In making the tests, particular attention was paid to reducing the contact time of the liquid and suspended precipitates. It will be seen from the results plotted in Fig 4, that the process of de-silication of water at 120 to 130°C is completed quite quickly and is very nearly over in 15 minutes. If the contact time is increased to 1 hour there is some improvement in the de-silication but the time of 15 minutes is best because then the size of the treating equipment can be very much reduced. Comparative tests showed that there is nothing to choose between the temperatures of 120 and 130°C. When treating water with caustic magnesite at temperatures in this range a

Card 2/5

SOV/96-59-5-13/19

An Investigation of the Process of Magnesia De-silication of Water
At High Temperature

residual silica content of 0.5 mg/litre can be obtained with a caustic magnesite dose of 5 mg/mg and a contact time of 15 minutes. The process of de-silication was then worked out when using lime to treat various waters. These were ordinary water, magnesium-cationised water and finally water in which the initial magnesium ion content was artificially increased by introduction of magnesium chloride. The test results show that adequate de-silication may be obtained, provided the amount of magnesium separated from the treated water is not less than 1 mg equiv per 10 mg SiO_3 in the initial water. The data in Table 5 were obtained during lime treatment of magnesium-cationised water at 120 to 130°C and indicate that the de-silication is more effective than at 40°C. The results plotted in Fig 6 show that increasing the contact time only improves the de-silication from 0.8 mg/litre SiO_3 at 15 minutes to 0.7 mg/litre SiO_3 at 60 minutes. Table 4 gives for

Card 3/5

SOV/96-59-5-13/19

An Investigation of the Process of Magnesia De-silication of Water
at High Temperature

comparison data that can be obtained when de-silicating water with caustic magnesite and by lime treatment of magnesium-cationised water at 120 to 130°C. The de-silication is improved by adding caustic magnesite to the water. De-silication by lime treatment of magnesium-cationised water is limited by the possibility of increasing the magnesium content in the water to be treated. It follows from the tests that the method can be used only for treating water with an initial hardness not less than 2.5 to 3.0 mg equiv/litre. If the water hardness is only 1 to 1.5 mg equiv/litre, the residual silica content is up to 1 mg/litre. When treating water at 120 to 130°C thermal losses are, of course, higher than at 40°C but this is more than counter-balanced because reduced blow-down can be used when the silica content of the water is reduced. It is calculated that overall the use of high temperature for de-silication will reduce the feed-water cost by about 35 kopeks a ton.

Card 4/5 It is concluded that the investigation has confirmed the

SOV/96-59-5-13/19

An Investigation of the Process of Magnesia De-silication of Water
at High Temperature

technological and economic advantages of using a temperature of 120 to 130°C for water de-silication. It will be necessary to have temperature-stable cationite, also clarifiers and batch meters of special construction for operating under pressure. A further study will be required into the technology of de-silication and the design of equipment. There are 6 figures, 4 tables and 5 references, 2 of which are Soviet and 3 English.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut (The All-Union Thermo-Technical Institute)

Card 5/5

KVYATKOVSKIY, V.M., kand. tekhn. nauk; ZHIVILOVA, L.M., inzh.

The value of pH and the rate of lime dosing for magnesium disilicating
of water. Teploenergetika 5 no.1:55-60 Ja '58. (MIRA 11:1)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Feed-water purification)

ZHUVINSKIY, N. YE.

Systems for Feeding and Lubrication Jet Engines. 1947.

ZHOVINSKIY, N.Ye.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 574 - I

BOOK

Author: ZHOVINSKIY, N. YE., Eng. Colonel, Dotsent, Kand. of Tech. Sci..

Full Title: AVIATION POWER PLANTS

Transliterated Title: Silovyye aviationsionnyye ustavovki

PUBLISHING DATA

Originating Agency: None

Publishing House: Military Publishing House of the Ministry of Armed Forces of the U.S.S.R.

Date: 1948 No. pp.: 433 No. of copies: Not given

Editorial Staff: The author expresses thanks for help to Engineer F. M. Gukhlerner for help in the preparation of this book.

PURPOSE: This textbook was written for units, schools and colleges of the Air Force.

TEXT DATA

Coverage: The author considers the operation and special features of contemporary (1948) aviation power plants and also the individual systems of power plant equipment on piston-engine and jet-engine aircraft. The book is divided into the following chapters:

1. piston engine fuel supply systems; 2. jet engine fuel supply systems; 5. radiators; 6. cowling for air-cooled engines; 7. air intakes; 8. exhausts; 9. automatic control of power plants. Diagrams, charts, tables.

1/2

Treatment of malaria with dextrorotatory ebinin. A. P. Butynina and A. M. Zhiyova. *Med. Parazitol. i Parasitic Diseases* (U.S.S.R.) 1950, No. 5, 30-4 (1947). Treatment of tertian malaria with ebinin lecithin. S. S. Rotenberg. *Ibid.* 33-40. Malaria gametocyte occurrence during treatment with synthetic preparations. R. G. Epstein. *Ibid.* 40-3. The use of ebinin and plasmochin is described. Arteritis 263 in tertian malaria. A. A. Contacova. *Ibid.* 44-6. Arteritis 263 would appear to be prep. from artemisin and to be similar to arcidine 26 except for the methoxy group. Treatment of malaria with sulfonamide preparations. T. Kh. Nadishmikdinov and N. G. Kuznetsova. *Ibid.* 49-52. Sulfadiazine and sulfathiazole are effective. Treatment of malaria with sulfadiazine. G. N. Savinskii. *Ibid.* 53-6. Sulfonamide derivatives in therapy of malaria. V. I. Stavrovskaya. *Ibid.* 57-63. A review, 30 references. Treatment of malaria with paludrine. A. A. Contacova. *Ibid.* 64-6. Treatment of obestinate relapsing malaria with melitin. K. A. Shimanovskaya. *Ibid.* 66-8. H. L. Williams

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064820019-9"

ZHIVILOVA, L.M., kand.tekhn.nauk; LYUTSKO, V.V., tekhnik; NEBOLSINA, T.V.,
tekhnik; SHKULIN, N.A., inzh.; MAKAROV, Ye.A., inzh.

Automatic device for indicating water hardness. Elek.sta. 32
no.4:40-44 Ap '61. (MIRA 14:7)

(Feed-water purification)
(Chemical engineering—Equipment and supplies)

ZHIVILOVA, L.

Shipments of chemical cargoes in the river transportation of the
United States. Rech. transp. 24 no.4:59-60 '65.

(MIRA 18:5)

ZHIVILOVA, L.M.; MAKSIMOV, V.V.

Schematics of the automation of filters. Vodopod., vod. rezh.
i khimkont. na parosil. ust. no.1:127-132 '64. (MIRA 18:2)

1. Vsesoyuznyy ordena Trudovogo Krasnogo Znameni teplotekhnicheskiy
institut imeni V.E. Dzerzhinskogo.

MOSTOFIN, A.A.; ZHIVILOVA, L.M.

Present-day automatic devices for the chemical control of water conditions of thermal electric power plants. Vodopod., vod. rezh. i khimkont. na parosil. ust. no.1:143-155 '64. (MIRA 18:2)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskii koltoturbinnyy institut imeni I.I. Polzunova i Vsesoyuznyy ordena Trudovogo Krasnogo Znameni teplotekhnicheskii institut imeni F.E. Dzerzhinskogo.

SHCHEVELEV, V., inzh.; ZHIVILOVA, L., inzh.

Construction of the head of a navigation lock by the use of a giant caisson. Rech. transp. 23 no. 12; 31-33 D '64.

1. Gosudarstvennyy institut proyektirovaniya i izyskaniya na rechnom transporte. (MIRA 18:6)

ZHIVILOVA, L.M.

RELEASE: 07/19/2001 CIA-RDP86-00513R002064820019-9
96-1-15/31
AUTHORS: Kvyatkovskiy, V.M., Candidate of Technical Sciences and
Zhivilova, L.M., Engineer.

TITLE: The pH Value and Conditions of Adding Lime During Magnesia Desilication of Water (Velichina pH i rezhim dozirovaniya izvesti pri magnezial'nom obeskremnivani vody)

PERIODICAL: Teploenergetika, 1958, Vol.5, No.1, pp. 55 - 60 (USSR)

ABSTRACT: The authors suppose that in the process of magnesia desilication there is partial or total hydration of the magnesium oxide, to form an association or complex molecules of the magnesium hydroxide. The magnesium hydroxide molecules go into solution, dissociating and forming a complex positive charged micelle, which is surrounded by a diffused layer of ions.

If this hypothesis is true, the pH value of the medium will greatly influence the efficiency of removal of silicic acid compounds: if the pH is too low, the sorption of silica compounds may be hindered by dissolution of magnesium oxide during interaction with bicarbonates in the feedwater: if it is too high, dissociation of magnesia may be suppressed. As would be expected from these ideas, it has been found that the process of magnesia de-silication takes place best at pH Card1/3 value of about 10; this value is maintained by the use of lime.

96-1-15/31

The pH Value and Conditions of Adding Lime During Magnesia De-silication of Water.

The process of combined lime and magnesia de-silication has some special features which are discussed, and a chemical equation is given. The reactions that occur lead to dissolution of caustic magnesite whereby the hardness and alkalinity of the water are changed. The quality of the water and the proportion of lime used are related graphically in Fig. 2 to show that if insufficient lime is added the water is enriched with ions of magnesia. If the treated water contains a sufficient OH ion concentration, caustic magnesite is not dissolved and partial precipitation of magnesia is possible. The water division of the Institute has investigated the best range of pH value at which to carry out magnesia de-silication. Tests under laboratory conditions were conducted with samples of untreated waters, the principal characteristics of which are given in Table 1. The results of the tests for several kinds of water are given in Fig. 3. For all the kinds of water the best de-silication is obtained over a narrow range of pH value, 10.1 to 10.3. The optimum value varies slightly from one water to another.

Card2/3 The results of calculations of magnesium ion concentrations as

The pH value and Conditions of Adding Lime During Magnesia Desilication of Water. 96-1-15/31

functions of pH value are given as dotted lines in Fig. 3. The stability of treated water was studied; to increase its stability the water may in some cases be treated at higher values of pH, up to 10.4. In some cases, however, stable water cannot be obtained without impairing de-silication. Further tests in the laboratory and on full-scale plants showed that in such cases the de-silicated water can be made stable by increasing the dose of coagulant to 1 mg. equiv/litre. As shown in Table 2, this lowers the alkalinity and silica content. The dosage of lime should not be less than the alkalinity of the initial water and not greater than is required to effect lime treatment with the separation of magnesium hydroxide. There are 3 figures, 2 tables and 1 non-Slavic reference.

ASSOCIATION: VTI

AVAILABLE: Library of Congress
Card 3/3

ZHIVILYUK, I.G., inzh.

Determination of the electric parameters of an 80-ton electric-arc furnace. Vest elektroprom. 31 no.11:62-66 N '60. (MIRA 13:12)
(Electric furnaces)

S/110/60/000/011/009/012
E194/E484

AUTHOR: Zhivilyuk, I.G., Engineer

TITLE: Determination of the Electrical Parameters of an
80-Ton Arc Furnace

PERIODICAL: Vestnik elektropromyshlennosti, 1960, No.11, pp.62-66

TEXT: The first part of the article consists of a brief description of steel melting arc furnace type ДСП-80 (DSP-80), the largest in the USSR, designed by the Elektroporech' Works. This is a three-phase furnace of 80 tons capacity and the main characteristics are given. The furnace is supplied by a transformer set type ЭТЦНК-40 000/35 (ETTsNK-40 000/35) consisting of a furnace transformer, a control auto-transformer, a fine control transformer, a reactor and an on-load tap changer. The group connection of the furnace transformer is $\Delta/\Delta - 12$ its output is 25000 kVA. The electrical losses in the transformer set on three voltage settings are given in Table 1. The transformer is installed above the furnace to reduce the length of the leads. An electromagnetic stirring device is provided. Testing of the furnace is described, the equivalent circuit of the furnace is shown in Fig.1. The difficulties encountered in Card 1/3

S/110/60/000/011/009/012
E194/E484

Determination of the Electrical Parameters of an 80-Ton Arc Furnace

testing furnaces where it is necessary to measure very heavy currents and low voltages are discussed. The short circuit tests were usually carried out at the end of a melt as then there was reliable contact with the electrodes. The measurement circuit used in the tests is shown in Fig.2. The tests were mainly made on a secondary voltage tapping of 170 V because then the short-circuit current was close to the rated secondary current of the transformer. The test results are then given. The short circuit test results on the 170 V tapping are given in Table 2. The single-phase short circuit test results on the 170 V tapping are given in Table 3. The phase characteristics determined from these short circuit tests are given in Table 4. The impedances, resistances and reactances of the transformer windings referred to the low voltage side and recalculated for connection of the impedances in equivalent star for the three voltage tappings are given in Table 5. The possibility of asymmetry between phases is discussed and it is shown that out-of-balance may occur because of different reactances of the leads even though the resistive loadings are equal.

Card 2/3

S/110/60/000/011/009/012
E194/E484

Determination of the Electrical Parameters of an 80-Ton Arc Furnace
Fig.3 shows characteristics of the furnace with sinusoidal and non-
sinusoidal voltages allowing for non-linearity introduced by the
arc discharge. The characteristics of the furnace are compared
with those of German and American furnaces in Table 6 and the
American furnace is criticized because of its high reactance.
In the furnace DSP-80 the load was balanced between phases, an
important measure in overcoming power asymmetry is the use of
bifilar symmetrical low-voltage current leads. In comparison
with the normal arrangement the current leads permit of a reduction
of the furnace reactance by about 18%. To check the power of the
different phases it is necessary to install a wattmeter on each low-
voltage phase. The ohmic resistance of the furnace circuit
depends mainly on the conductivity of the electrodes and
available Soviet electrodes 550 mm diameter have an electrical
conductivity equivalent to that of the best foreign products. It
would be desirable to use an improved regulator for large arc
furnaces so as to make better use of the power capacity of the
installation. There are 3 figures, 6 tables and 3 references:
2 Soviet and 1 German.

SUBMITTED: June 6, 1960
Card 3/3

S/133/61/000/007/006/017
A054/A129

AUTHOR: Zhivilyuk, I. G.

TITLE: The electrical characteristics of the 80-ton arc furnace

PERIODICAL: Stal', no. 7, 1961, 611 - 613

TEXT: In the beginning of 1959 a A01-80 (DSP-80)-type 80-ton arc-furnace, the largest of Soviet make, was put into operation. The furnace is equipped with 3 electrodes 550 mm in diameter, the inner diameter of the furnace casing is 6,300 mm, the 25,000-kwh transformer of the furnace has a range of 23 voltages (maximum secondary voltage: 417 v, minimum: 131 v), the rated electric intensity of the transformer for each stage is 34,600 a. In the delta-type electric system of the electrodes the bifilarity is disturbed, however, and this results in a difference between the reactance of the extreme and the medium phases. In order to determine the characteristics of the electric system of the furnace, short-circuiting tests were carried out (in which the ends of the electrodes were immersed in the liquid metal). In the tests 170 v was applied, at which the values of short-circuiting approximate the rated secondary current of the transformer. The average results obtained for the reactive and active resistance of the furnace

Card 1/3

S/133/61/000/007/006/017

The electrical characteristics of the 80-ton arc furnace A054/A129

circuit show that these values are lower for the 80-ton DSP-furnace than for the 70-ton model. Due to load-oscillations the calculated coefficient of capacity ($\cos \varphi$) at the rated current decreases to 0.8 and the average capacity to 20,000 kw. The decrease of the capacity coefficient for the DSP-80 furnace is also caused by unstable sparking of the arc which cannot be eliminated with $PM\Delta$ (RMD) regulators used instantaneously. In order to reduce the difference between the actual current intensity and the optimum, the burning of the arc had to be stabilized. For this purpose the electric circuit of small furnaces is supplied with an additional resistance, slag forming agents and materials with a low ionization potential are added to the charge and hollow electrodes are applied. In large smelters the stability of the arc burning is obtained by increasing the reactance of short circuits. With hollow electrodes the burning of the arc becomes more stable, the smelting process is accelerated and electric power consumption drops. The furnace operates with asymmetric current supply of low voltage and consequently the capacities are different at the various electrodes. This can be eliminated by maintaining a given ratio of electric intensity in the electrodes. Tests showed that the most regular distribution of useful capacity between the electrodes can be obtained at a current ratio of $I_1 : I_2 : I_3 = 0.9 : 1.0 : 0.95$. The low strength of refractory material limits the operation of the DSP-80 fur-

Card 2/3

S/133/61/000/007/006/017

The electrical characteristics of the 80-ton arc furnace A054/A129

nace when switched to maximum capacity during smelting. Though having somewhat better parameters than similar furnaces abroad, the DSP-80 furnace is seriously handicapped by the high reactance of the circuits and the inequality of phase-resistances. There are 2 figures, 3 tables and 1 non-Soviet-bloc reference.

ASSOCIATION: Tsentroenergochemet

Card 3/3

ZHIVILYUK, I.G., inzh.

Electrical parameters of powerful ore reduction furnaces. Vest.
elektroprom. 29 no. 8:33-35 Ag '58. (MIRA 11:8)
(Electric furnaces)

AUTHOR: Zhivilyuk, I.G. (Engineer)

SOV/110-58-8-10/26

TITLE: The Electrical Parameters of High-power Ore-reduction
Furnaces (Elektricheskiye parametry moshchnykh
rudovosstanovitel'nykh pechey)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Nr 8, pp 33-35 (USSR)

ABSTRACT: The article describes experimental determinations of the reactance and resistance of the leads to ore-reducing furnaces. If the reactance of furnace leads is too high, the power-factor may be unacceptably low. It is difficult to measure the reactance and resistance because strong magnetic fields are present, and the voltages to be measured are quite low. To determine the total active resistance of the furnace it is best to make simultaneous measurements of power and current on the high-voltage side of the transformer and on the electrodes where they enter the charge. The circuit used is shown in Fig 1. The active resistance is determined from the power losses. The necessary formulae for the determination of resistance and reactance are given. The power distribution between phases is determined from single-phase wattmeter readings.

Card 1/3

SOV/110-58-8-10/26

The Electrical Parameters of High-power Ore-Reduction Furnaces

As the furnace current is increased, the reactance and resistance diminish, because of magnetic saturation of steel parts near the conductors and because of distortion of current wave-shapes, but are approximately constant for currents above 30,000 A. Their measured values, as functions of electrode current in a particular case, are plotted in Fig 2. The method was used to determine the parameters of five furnaces of different designs. The first three furnaces are used to melt silicon alloys, the fourth carbonless ferro-chrome and the fifth ferro-tungsten. All are three-phase circular furnaces. Each furnace is briefly described and its main characteristics are given in Table 1. The distribution of power between the phases, as recorded in Table 2, shows that in a given furnace one phase may develop 1½ times the power of another. It is concluded that the method of determining the electrical characteristics of furnaces gives results that are satisfactory for practical purposes. The current leads of the measuring circuits are not affected by strong magnetic fields because they are connected to current transformers on the high-voltage side of the

Card 2/3

SOV/110-58-8-10/26

The Electrical Parameters of High-power Ore-reduction Furnaces

furnace transformers. Errors due to the furnace trans-formers are small and can be allowed for. Measurements of resistance and reactance give useful information about the design of the furnace leads. If the reactance is 7×10^{-4} ohms and the resistance is 1.8×10^{-4} ohms, the power-factor will be satisfactory. A further method of improving the power-factor is to reduce the furnace frequency, but the possibilities of doing this are obviously limited.

There are 2 figures and 2 tables.

SUBMITTED: October 16, 1957

1. Electrical equipment--Performance
2. Oil burning furnaces--Electri-cal systems

Card 3/3

5 H: V ~~W~~, V, 1.

4) A P Glebovich, A I Lur'e, Yu. I. Novozhilov, and G. G. Polozov - *Experience in the Application of Electronic Computers for a Solution of the Building Administration Problem*.

5) A Logvin - *Programs for the Use of Electronic Computers in the Overall Planning of Building Sector Utilization*.

6) Yu. Gulyaev - A Program for the Solution of Transport Problems in Electronic Computer Envelope Methods of Approximation by Means of Hypothetically Optimal Plans.

7) A P Gulyaev - An Optimal Freight Schedule Plan for the Coal Industry.

Reading Seminar - 17 December 1959, 1000 hours

V. The Construction-type Balance

1) V. Sosulin - *Statistical Problems of the Construction-type Balance*.

2) V. Sosulin - *The Construction-type Balance and the Planning of National Economy*.

3) Yu. I. Chernov - *Experience in Preparing the Construction-type Balance for an Economic Administration Region*.

4) V. Sosulin - *Some Planning Calculations Based on the Budget Output Balance of an Economic Region*.

5) V. Sosulin - *A National Model of Agricultural Production*.

6) V. I. Zhdanov, A I. El'kin - *The Nature and Special Features of Soviet Budgets*.

Reading Seminar - 17 December 1959, 1000 hours

V2. Mathematical Statistics

1) Yu. N. Sosulin - *Statistical Methods for Determining the Average Prices of Goods*.

2) V. V. Sosulin - *The Construction Electricity Indication and its Practical Application in Studying the Economic Level of Regions*.

3) P. Shabotov - *Analytical Methods of Studying the Dynamics of Construction in Russia*.

4) I. N. Krasov, V. V. Tuzikov - *Statistics and the Use of Mathematical Methods in Economic Research*.

5) V. V. Sosulin - *Research on Theoretical and Economic Levels in Non-Chemical Metallurgy with the Aid of Correlation Theory*.

6) V. Sosulin - *Application of Correlation Methods in the Analysis of Shorter Construction Cycles*.

Report submitted at the Soviet Conference on Problems in the Application of Behavioural Methods in Economic Research, Tashkent, 1970.

AYZENSSTEYN, E.M.; ZHIVINA, M.I.

Evaluating the molecular weights of polyethylene terephthalate and
of the fibers made from it (lavsan). Khim. volok. no.2:74-75 '64.

1. "Soyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna. (MIRA 17:5)

ZHIVITSA, I.M.

Principal results of the activities of the Krasnodar branch of
the All-Union Petroleum Research Institute. Trudy VNII no.18:
138-153 '58. (MIRA 1212)
(Petroleum engineering)

315) PHASE I BOOK EXTRAPOLATION

SOV/2302

Akademiya nauk Ukrainskoy SSR. Institut geologii polzennikh iskopayeychikh

Problemy migratsii nefti i formirovaniya nefteyanikh i gatorovikh aksonal'noy i masychnoy l'evoviny diabazikh 8-12 maya 1957 g. (problem of Oil Migration and the Formation of Oil and Gas Accumulations). Materials of the Discussion Held in Lvov, May 8-12, 1957) Moscow, Gosizdatpolizdat, 1959. 422 p. 1,100 copies printed.

Eds.: V. B. Porfir'yev, Academician of the Ukrainian SSR Academy of Sciences, and I. O. Brod. Professor: K. P. R. Brod, Professor, Tech. Ed.: A. S. Polozin; Editorial Board: I. O. Brod, Professor, K. P. R. Brod, Academician, and V. B. Porfir'yev, Academician of the Ukrainian Academy of Sciences.

PURPOSE: This collection of articles is intended for a wide range of geologists and research workers interested in oil problems. CONTENT: Articles contained in this book deal with the problems of migration and accumulation of oil and gas. These problems were discussed in May 1957 at Lvov State University im. I. Franka at a meeting organized jointly by the Institute of Geology and Mineral Resources, Academy of Sciences of the USSR, the Department of Geology and Oil Exploration of the Lvov Polytechnic Institute, and the Lvov Geological Society. Materials on the origin of petroleum deposits and the conditions surrounding their occurrence are treated. There are 327 references, 232 Soviet, 66 English, 5 French, and 4 German.

TABLE OF CONTENTS:

Introduction

3
Opening Address by the President of the Organization Committee
of the Conference V.B. Porfir'yev

5

REPORTS

Abramovich, M. A. Sh. P. Reznitskaya, B. I. Gorin, O. A. Al'madov, and S. G. Salayev. Poration of Oil-bearing Deposits in the Tertiary System of Kirghizstan 41

Bokov, V. I. [Institut nefti]. The Possibility of the Formation and Migration of Oil in Late Sedimentary Deposits 59

Sharkov, A. M. [Politekhnicheskii Institut, Lvov]. Problems in Oil Migration and the Formation of Petroiferous Deposits 63

Kartsev, A. A. [Moshkovets'kiy Institut im. I. M. Gubkina]. Geochemical Criteria in the Study of the Formation of Oil Deposits 79

Bilubinsky, M. P. [Institut geologicheskikh nauk AN UkrSSR]. Formation of Gas and Oil Deposits in the Eastern Part of the Donets Domains 85

Shardanov, A. N. and I. M. Zhurav. Conditions for the Formation of Petroiferous Beds in the Tertiary Deposits of the Southern Prilegorye 93

M.
ZHIVITSA, I.; KOROTKOV, S.; SHARDANOV, A.

"Initial formation pressure in oil and gas fields" by B.A.
Tkhostov. Reviewed by I. Zhivitsa, S. Korotkov, A. Shardanov.
Geol. nefti i gaza 5 no.10:64, 3 of cover 0 '61. (MIRA 14:9)
(Petroleum geology) (Gas, Natural---Geology)
(Tkhostov, B.A.)

1. V. S. ZHIVITSA
2. USSR (600)
4. Bee Culture - Equipment and Supplies
7. Pchelovodstvo 30 no. 1. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

DUNDUK, I.D., inzhener; ZHIVITSA, V.Ya.

An experiment in increasing the wear resistance of grab parts in
earthworking machinery. Rech.transp. 14 no.8:20-21 Ag'55.

(MLRA 8:11)

(Earthmoving machinery) (Mechanical wear)

DUNDUK, I.D., inzhener; ZHIVITSA, V.Ya.

An experiment in increasing the wear resistance of grab parts in
earthworking machinery. Rech.transp. 14 no.8:20-21 Ag'55.

(MLRA 8:11)

(Earthmoving machinery) (Mechanical wear)

SHIVITSA, V. YA., DUNDUK, I. D.

Shipbuilding

Technology of ship piping-system work. Rech. transp. 12 no. 2, 1952.

Monthly List of Russian Accessions Library of Congress, August, 1952. UNCLASSIFIED.

DOBROLYUBSKIY, O.K.; RYZHA, V.K.; ZHIVITSKAYA, L.I.

Effect of trace elements on the enzymatic activity of corn.
Nauch.dokl.vys.shkoly; biol.nauki no.1:168-172 '59.

(MIRA 12:5)

1. Rekomendovana kafedroy neorganicheskoy i analiticheskoy
khimii Odesskogo sel'skokhozyaystvennogo instituta.
(CORN (MAIZE)) (TRACE ELEMENTS) (ENZYMES)

DOBROLYUBSKIY, O.K.; ZHIVITSKAYA, L.I.

Cobalt content of grapes as related to the utilization conditions
of the trace element. Nauch.dokl.vys.shkoly: biol.nauki no.4:186-
189 '60. (MIRA 13:11)

1. Rekomendovana kafedroy neorganicheskoy i analiticheskoy khimii
Odesskogo sel'skokhozyaystvennogo instituta.
(GRAPES--FERTILIZERS AND MANURES)
(PLANTS, EFFECT OF COBALT ON)

L 3548-66 EWT(d)/EWT(m)/EWP(v)/EWP(z)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(k)/EWA(c)
ACCESSION NR: AP5024431 JD/HN/JT UR/0286/65/000/015/01h1/01h1
621.9.018

AUTHORS: Zhivitskiy, A. S.; Yakhimovich, D. F.

TITLE: A device for cutting with ultrasound. Class 49, No. 173593

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 141

TOPIC TAOS: ultrasound, metal cutting, ultrasonic grinding

33
B

ABSTRACT: This Author Certificate presents a device for ultrasound cutting, similar to the one described by Author Certificate No. 157204. To prevent the deformation of fastening elements of the rocking systems, the acoustical heads are mounted on separate axles perpendicular to the plane of metallic bands in such a position as to allow free rocking in this plane (see Fig. 1 on the Enclosure).
Orig. art. has: 1 figure.

ASSOCIATION: Osoboye konstruktorskoye byuro po proyektirovaniyu sredstv avtomatizatsii i kontrolya i elektroeracionnogo oborudovaniya goskomiteta po mashinostroyeniyu (Special Construction Bureau for Designing the Means of Automation, Inspection, and Electric Grinding Equipment at the Goskomitet for Machine Construction)

Card 1/3

L 3548-66
ACCESSION NR: AP5024431

SUBMITTED: 11Apr64

ENCL: 01

SUB CODE: 1E

NO REF Sov: 000

OTHER: 000

Card 2/3

L 3548-66
ACCESSION NR: AP5024431

ENCLOSURE: 01

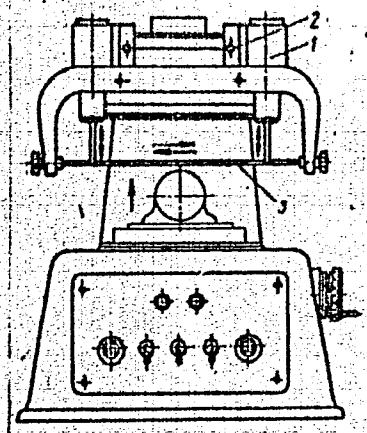


Fig. 1. 1- acoustical heads; 2- axles;
3- metallic band

MLR
Card 3/3

L 07352-67 EWT(d)/EWT(m)/EWP(v)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(1) IJP(c) JD

ACC NR: AP6012171

SOURCE CODE: UR/0413/66/000/007/0100/0100

AUTHORS: Yakhimovich, D. F.; Chechina, L. G.; Zhivitskiy, A. S.; Gryaznov, Ye. M.

ORG: none

32

TITLE: An instrument for cutting several objects from hard and brittle materials.
Class 49, No. 180474

SOURCE: Izobreteniya, promyshlennyye obraztay, tovarnyye znaki, no. 7, 1966, 100

TOPIC TAGS: ultrasound, ultrasonic machining, ultrasonic equipment

ABSTRACT: This Author Certificate presents an instrument for cutting several objects from hard and brittle materials. The instrument is made in the form of a concentrator with a separating plate attached to it. The plate carries a number of cutting blades (see Fig. 1). To preserve an identical amplitude of oscillations for all the blades, openings or slits are produced over the entire face of the blade group and over the whole transverse section of the concentrator. The depth of openings or of slits reaches to the translocation plane of nodes of the longitudinal oscillations. The external contours of the intermediate plate and

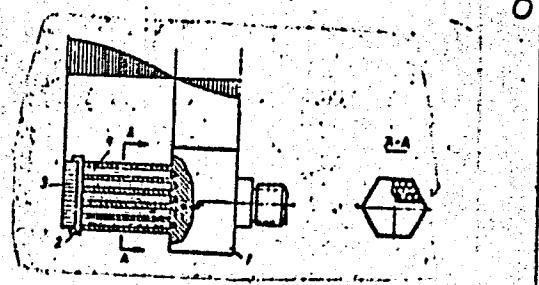
Card 1/2

UDC: 621.9.048.6.06

L 07352-67

ACC NR: AP6012171

Fig. 1. 1 - waveguide; 2 - plate;
3 - assembly of cutting blades;
4 - openings or slits



of the outflow stage of the concentrator correspond to the external contour of the cutting blades assembly. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 31Jan64

Card 2/2 afe

ZHIVKOV, E.; ZAIMOV, K.

Variations of ocular pressure during insulin and electric shock therapies of mental diseases. Suvrem. med., Sofia 5 no.1:31-37 1954.

1. Iz Klinikata po psikiatria (zaveshdashch: prof. G. Uzunov) i Klinikata po ochni bolesti (zaveshdashch: dots. Danilov) pri Meditsinskata akademia V. Chervenkov, Sofia.
(EYE,

*pressure, in insulin & electric shock ther.)
(SHOCK THERAPY,

*ocular pressure variations during electric & insulin ther.)

BOGATEV, Kiril, dots. inzh.; ZHELEV, Ivan, inzh.; ZHIVKOV, Doncho, inzh.

Results of the computation of the dynamic stability of our electric system with the aid of the electric static model of our Electric-Power Administration. Elektroenergiia 13 no.2:6-8 F '62.

ZHIVKOV, E., dots.; TOSHEV, Str.

Tonography with a photoelectric tonometer. Khirurgiia, Sofia 13
no.12:1037-1041 '60.
(INTRACULAR PRESSURE)

ZHIVKOV, Ev.; ARGIROV, D.; BANKOV, P.

Experimental studies on the effect of anesthesia on ocular pressure in rabbits with special reference to parabiosis. Khirurgia, Sofia 7 no. 10:596-602 1954.

1. Meditsinska Akademija V. Chervenkov, Sofia. Katedra po Oftalmologija. Zaveshdashch katedrata: dots. D. Danilov.

(EYE,

tension, eff. of anesth. in rabbits)

(ANESTHESIA, effects,

on eye tension in rabbits)

ZHIVKOV, M.O.; DOKOV, V.K.

Experimental studies on sympathetic ophthalmia. 4. Effect of novocain block and of denervation. Khirurgiia 7 no.1:33-36 1954.

1. Katedra na ochni bolesti. Zavezhdeshch: dots. Daniilov. 2. Katedra po khistologii i embriologii. Zavezhdashch: akademik A.I.Khadzhiolov.

(OPHTHALMIA, SYMPATHETIC, experimental,

*eff. of procaine nerve block & denervation)

(PROCAINE, effects,

*on exper. ophthalmia, sympathetic)

DEC. 4 1961, 1 AM. 35 CEN, VINE 57

2703. ZHIVKOV E., ARGIROV D. and BANKOV P. Dept. of Ophthalmol., High Med. Inst., Sophia. *Influence of adrenaline and pilocarpine on intraocular tension and pupillary diameter in ergotaminized rabbits ANN.REP.HIGH MED.INST.1956, 2/2(49-61) Graphs 8 During treatment of glaucoma with adrenaline (I) and pilocarpine (II) the intraocular tension and pupil diameter show different phase reactions during the different stages of glaucoma. 66 experiments were carried out on 10 rabbits. The 10 control experiments confirmed the known pupil dilatation and fall of intraocular tension after ergotamine (III) (0.00075 g./kg. i.m.). When a 0.1% solution of I was instilled into one eye of a rabbit pretreated with III, the pupil of this eye was dilated more than that of the other eye, as seen after a stronger (1%) solution of I (in 5 of 7 experiments) this is regarded as a paradoxical reaction. In the same experiments the intraocular tension remained high instead of being lowered; this is regarded as an inverted reaction (3 of 7 experiments). In 5 III-treated rabbits the instillation of a 1:5,000 solution of I into the right eye led to pupil dilation, in comparison with the left eye, corresponding to that produced by a stronger (1%) solution of I (paradoxical reaction). In the other 5 rabbits of the same test group, 1:5,000 I led to constriction of the pupil in comparison with the untreated left eye (inverted reaction). In 3 of 9 rabbits pretreated with III, instillation of 0.1% solution of II into the right eye produced an increased miotic effect (paradoxical reaction). In 8 of 10 III-treated rabbits the instillation of a 1:5,000 solution of II into the right eye led to a degree of pupil dilatation surpassing that produced by III alone in the left eye (inverted reaction) (49 references). Popov - Sofia (II, 12*)

ZHIVKOV, E.; MILEV, D.

Some etiological aspects of the optic nerve atrophy in North Korea.
Khirurgiia, Sofia 10 no.8:710-715 1957.

(NERVES, OPTIC, dis.

atrophy, etiol.)

(ATROPHY, etiol. and pathogen.
nerve, optic)

ZHIVKOV, E., dotsent; GOLEMINOVA, R.; DENEV, Vl.; KHANTOVA, K.

Treatment of endogenous uveitis. Khirurgiia 16 no.1:103-113
'63.

1. Iz Katedrata po ochni bolesti pri VMI [Vissh meditsinski
institut] - Sofia.
(UVEITIS) (SYPHILIS) (TUBERCULOSIS OCULAR)
(TOXOPLASMOSIS OCULAR) (MYCOSES)

ZHIVKOV, E., GOLEMINOVA, R.; ARGIROV, D.; PANDOV, Kh.

Effect of quinine and aureomycin on the cytological picture
of the anterior chamber in rabbits inoculated with herpes
simplex. Nauch tr. vissk. med. inst. Sofiia 42 no.1:207-215
'63.

1. Predstavna ot dots, E. Zhivkov,
(CHLOROTETRACYCLINE) (QUININE)
(PHARMACOLOGY) (KERATITIS, DENDRITIC)
(PATHOLOGY) (AQUEOUS HUMOR)

ZHIVKOV, E.
EXCERPTA MEDICA Sec.12 Vo.11/6 Ophthalmology June 57

918. ZHIVKOV E., ZAIMOV K. and BANKOV P. Depts of Ophthalmol. and Neuro-psychiat., High Med. Inst., Sofia. * Pupillary reactivity and eye tension in schizophrenic patients treated with insulin (Bulgarian text) SOVR. MED. 1955, 6/6 (24-29)

The action of drops of solutions of adrenaline 1:5,000 and pilocarpine 1:20,000 on pupillary width and ocular tension were investigated in 182 tests on 57 patients with different forms of active schizophrenia. The solutions instilled in the right eyes of 13 healthy persons did not influence pupils and ocular tension in the control tests. In schizophrenic patients they dilated (adrenaline) or constricted (pilocarpine) the pupils of the treated right eyes when compared with the untreated left eyes. An attempt to explain these findings is made. The changes of ocular tension

918

cont

measured by the Schiötz tonometer could hardly be explained in these experiments.
Popov - Sofia (VIII, 12)

ZHIVKOV, E.; BANKOV, P.

Kimmelstiel-Wilson syndrome with rubecosis iridis diabetica and
increased intraocular pressure. Khirurgiia, Sofia 12 no.10:
830-834 '59.

1. Viash meditsinski institut - Sofiia. Katedra po oftalmologii.
Zav.katedrata: dots. Ev. Zhivkov.
(KIMMELSTIEL WILSON SYNDROME compl.)
(IRIS dis.)
(INTRACULAR PRESSURE)

ZHIVKOV, M.; MILEV, D.

Some etiological aspects of the optic nerve atrophy in North Korea.
Khirurgiia, Sofia 10 no.8:710-715 1957.

(NERVES, OPTIC, dis.

atrophy, etiol.)

(ATROPHY, etiol. and pathogen.
nerve, optic)